

# **Reproductive Toxicology**

**List of Contents/Author Index/Key Word Index**

**Volume 6, 1992**



**PERGAMON PRESS**

**New York • Oxford • Seoul • Tokyo**

# Reproductive Toxicology

---

## Editor-in-Chief

**Dr. Anthony R. Scialli, U.S.A.**  
Reproductive Toxicology Center  
Suite 217, 2440 M Street, NW  
Washington, DC 20037-1404, U.S.A.

## Associate Editors

**Dr. Nigel Brown, U.K.**  
Medical Research Council Laboratories, EETU  
St. George's Hospital Medical School  
University of London, Cranmer Terrace  
London, SW17 ORE, U.K.

**Dr. W.S. Webster, Australia**  
Department of Anatomy  
University of Sydney  
New South Wales 2006,  
Australia

## Editorial Board

Diana Anderson, U.K.	Richard Jelinek, Czechoslovakia	Allen A. Mitchell, U.S.A.	Joe Leigh Simpson, U.S.A.
Felix Beck, U.K.	E. Marshall Johnson, U.S.A.	Ian Morris, U.K.	Richard G. Skalko, U.S.A.
James S. Bus, U.S.A.	Mont R. Juchau, U.S.A.	Heinz Nau, Germany	B.R. Sonawane, U.S.A.
George Cassady, U.S.A.	D.M. Kochhar, U.S.A.	James W. Overstreet, U.S.A.	Horst Spielmann, Germany
Gary J. Chellman, U.S.A.	John W. Larsen, U.S.A.	Anthony K. Palmer, U.K.	Frank M. Sullivan, U.K.
Elaine Faustman, U.S.A.	Grace K. Lemasters, U.S.A.	Rodolfo Paoletti, Italy	Ken Takizawa, Japan
P.M.D. Foster, U.K.	Richard J. Levine, U.S.A.	Sally D. Perreault, U.S.A.	Herbert Tuchmann-Duplessis, France
S.J. Freeman, U.K.	Armand Lione, U.S.A.	Barbara R. Pober, U.S.A.	Steven L. Warsof, U.S.A.
T.J.G. Gray, U.K.	Donald R. Mattison, U.S.A.	J. Gerald Quirk, U.S.A.	Peter K. Working, U.S.A.
Maureen C. Hatch, U.S.A.	John A. McLachlan, U.S.A.	Jerry M. Rice, U.S.A.	Andrew J. Wyrobek, U.S.A.
T. Terry Hayashi, U.S.A.	Richard K. Miller, U.S.A.	Elisabeth Robert, France	
Laird G. Jackson, U.S.A.		Susan Sieber-Fabro, U.S.A.	

---

**Editorial Office:** Anthony R. Scialli, Reproductive Toxicology Center, Suite 217, 2440 M Street, NW, Washington, DC 20037-1404, U.S.A.

**Publishing Subscription and Advertising Offices:** Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A., INTERNET "PPI@PERGAMON.COM" and Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW, England.

**Published Bimonthly:** Annual institutional subscription rate (1993): £263.00 (US\$500.00); Professional subscription rate (1993): £66.00 (US\$125.00). Sterling prices are definitive. US dollar prices are quoted for convenience only, and are subject to exchange rate fluctuation. Prices include postage and insurance and are subject to change without notice.

# Reproductive Toxicology

Volume 6, Number 1

1992

## CONTENTS

### *Editorial*

**D.R. Mattison** 1 Protecting Reproductive and Developmental Health under Proposition 65—Public Health Approaches to Knowledge, Imperfect Knowledge, and the Absence of Knowledge

### *Reproductive Toxicology Reviews*

**C.B. Ernhart** 9 A Critical Review of Low-Level Prenatal Lead Exposure in the Human: 1. Effects on the Fetus and Newborn

**C.B. Ernhart** 21 A Critical Review of Low-Level Prenatal Lead Exposure in the Human: 2. Effects on the Developing Child

### *Original Contributions*

**M.B. Anderson** 41 Histopathology of Testes from Mice Chronically Treated with Cobalt  
**N.G. Pedigo**  
**R.P. Katz**  
**W.J. George**

**M.C. Rodriguez** 51 Effects of Cocaine on Testicular Structure in the Rat  
**J. Sanchez-Yague**  
**R. Paniagua**

**B.S. Ahluwalia** 57 Amniotic Fluid and Umbilical Artery Levels of Sex Hormones and Prostaglandins in Human Cocaine Users  
**J.F.J. Clark**  
**L.S. Westney**  
**D.M. Smith**  
**M. James**  
**S. Rajguru**

**S.L. Beck** 63 Dependence of Acetazolamide Teratogenesis on Fetal and Not Maternal Genotypes  
**N. Manabat**

**J. Urbach** 69 Effect of Inorganic Mercury on In Vitro Placental Nutrient Transfer and Oxygen Consumption  
**W. Boadi**  
**J.M. Brandes**  
**H. Kerner**  
**S. Yannai**

<b>K. Paksy</b>	77	Altered Ovarian Progesterone Secretion Induced by Cadmium Fails to Interfere with Embryo Transport in the Oviduct of the Rat
<b>B. Varga</b>		
<b>M. Náray</b>		
<b>F. Olajos</b>		
<b>G. Folly</b>		
<b>G.D.C. Terlouw</b>	85	Comparison of the Metabolic Activity of Yolk Sac Tissue in the Whole Embryo and Isolated Yolk Sac Culture
<b>R. Bechter</b>		
<b>E.M. Martinez</b>	93	Effects of Methoxychlor on the Reproductive System of the Adult Female Mouse: 2. Ultrastructural Observations
<b>W.J. Swartz</b>		
<i>Special Article</i>		
<b>J.M. Donald</b>	99	Prioritizing Candidate Reproductive/Developmental Toxicants for Evaluation
<b>L.E. Monserrat</b>		
<b>K. Hooper</b>		
<b>S.A. Book</b>		
<b>G.F. Chernoff</b>		
<i>Book Reviews</i>		
<b>P.C. Sacks</b>	109	<i>Assisted Human Reproductive Technology</i> , edited by E.S.E. Hafez
<b>A.R. Scialli</b>	109	<i>Congenital Malformations. Antenatal Diagnosis, Perinatal Management, and Counseling</i> , by J.W. Seeds and R.G. Azizkhan
	111	Announcement

Volume 6, Number 2

1992

## CONTENTS

### *Editorial*

<b>A.R. Scialli</b>	113	Bias in News Reporting
---------------------	-----	------------------------

### *Reproductive Toxicology Review*

<b>K.D. Allen</b>	115	Small <i>n</i> Research Designs in Reproductive Toxicology
<b>P.C. Friman</b>		
<b>W.G. Sanger</b>		

### *Original Contributions*

<b>W.G. Foster</b>	123	Reproductive Toxicity of Chronic Lead Exposure in the Female Cynomolgus Monkey
--------------------	-----	--------------------------------------------------------------------------------

<b>J.F. Jarrell</b>	133	Regulation of Total Ovarian Glutathione Content in the Rat
<b>M. Sevcik</b>		
<b>G. Stuart</b>		

<b>G.A. Weitzman M.M. Miller S.N. London D.R. Mattison</b>	137	Morphometric Assessment of the Murine Ovarian Toxicity of 7,12-Dimethylbenz(a)Anthracene
<b>K.A. Treinen J.J. Heindel</b>	143	Evidence that MEHP Inhibits Rat Granulosa Cell Function by a Protein Kinase C-Independent Mechanism
<b>P. Goldstein L. Magnano J. Rojo</b>	149	Effects of Dimethyl Sulfone (DMSO <sub>2</sub> ) on Early Gametogenesis in <i>Caenorhabditis Elegans</i> : Ultrastructural Aberrations and Loss of Synaptonemal Complexes from Pachytene Nuclei
<b>M.P. Mahalik H.W. Hitner</b>	161	Antagonism of Cocaine-Induced Fetal Anomalies by Prazosin and Diltiazem in Mice
<i>Short Communications</i>		
<b>G. Potashnik R. Carel I. Belmaker M. Levine</b>	171	Spermatogenesis and Reproductive Performance following Human Accidental Exposure to Bromine Vapor
<b>C. Schaefer P.W.J. Peters</b>	175	Intrauterine Diethyltoluamide Exposure and Fetal Outcome
<i>Abstracts</i>		
177 Risk Assessment in Teratology and Genetic Toxicology, July 1-4, 1991, Pilsen, Czechoslovakia		
<i>Book Review</i>		
<b>A.R. Scialli</b>	191	<i>A Color Atlas of Life before Birth</i> by M.A. England
	193	Erratum
	195	Letter to the Editor
	197	Announcements

Volume 6, Number 3

1992

#### CONTENTS

201	Announcement
<i>Editorial</i>	
<b>A.R. Scialli</b>	203 Structured Abstracts

*Reproductive Toxicology Review*

**E. Robert** 205 Handling Surveillance Types of Data on Birth Defects and Exposures during Pregnancy

*Original Contributions*

**D.S. Arce** 211 Reversible and Persistent Consequences of Copper Deficiency in Developing Mice

**C.L. Keen**

**R.J. Appel** 223 Passage of Methoxychlor in Milk and Reproductive Organs of Nursing Female Mice; 1. Light and Scanning Electron Microscopic Observations

**V.P. Eroschenko**

**C.-J. Jönsson** 233 Adrenocortical Toxicity of 3-Methylsulphonyl-DDE; 3: Studies in Fetal and Suckling Mice

**B.-O. Lund**

**Å. Bergman**

**I. Brandt**

**S. Coberly** 241 Effects of Maternal Exposure to Trichloroethylene (TCE) on Cell Proliferation in the Mouse Preimplantation Embryo

**D.J. Oudiz**

**J.W. Overstreet**

**L.M. Wiley**

**S.L. Beck** 247 Bromodeoxyuridine Leaves Evidence of Prenatal Exposure in the Postnatal Skeleton in CD-1 Mice

**D.J. Gladstone** 257 Course of Pregnancy and Fetal Outcome following Maternal Exposure to Carbamazepine and Phenytoin: A Prospective Study

**M. Bologa**

**C. Maguire**

**A. Pastuszak**

**G. Koren**

*Short Communication*

**D.W. Lynch** 263 Eye Abnormality in *Drosophila Melanogaster* Exposed to 5-Fluorouracil during Development

**R.L. Schuler**

**D.G. Davis**

**R.D. Hood**

*Special Consensus Papers*

**R.E. Chapin** 267 Methods for Assessing Rat Sperm Motility

**R.S. Filler**

**D. Gulati**

**J.J. Heindel**

**D.F. Katz**

**C.A. Mebus**

**F. Obasaju**

**S.D. Perreault**

**S.R. Russell**

**S. Schrader**

**V. Slott**

**R.Z. Sokol**

**G. Toth**

**S.M. Schrader** 275 **Laboratory Methods for Assessing Human Semen in Epidemiologic Studies: A Consensus Report**  
**R.E. Chapin**  
**E.D. Clegg**  
**R.O. Davis**  
**J.L. Fourcroy**  
**D.F. Katz**  
**S.A. Rothmann**  
**G. Toth**  
**T.W. Turner**  
**M. Zinaman**

*Book Review*

**A.R. Scialli** 281 *Exercise in Pregnancy* edited by R.A. Mittelmark, R.A. Wiswell, and B.L. Drinkwater  
283 Erratum  
285 Announcements

Volume 6, Number 4

July/August 1992

**CONTENTS**

*Editorial*

**D.L. Davis** 289 **Male-Mediated Teratogenesis and Other Reproductive Effects: Biologic and Epidemiologic Findings and a Plea for Clinical Research**  
**G. Friedler**  
**D. Mattison**  
**R. Morris**

*Special Article*

**G. Koren** 293 **A Quality Assurance Program for Teratogen Information Services**

*Original Contributions*

**J.M. Ratcliffe** 297 **Does Early Exposure to Maternal Smoking Affect Future Fertility in Adult Males?**  
**B.C. Gladen**  
**A.J. Wilcox**  
**A.L. Herbst**

**A.L. Prather** 309 **Caffeine Effects on Meiotic Maturation in Hamster Oocytes in Vitro**  
**C. Racowsky**

**S. Maswood** 319 **Disruption of Female Rat Vaginal Cyclicity by Daily Treatment with Imipramine**  
**L. Uphouse**

<b>V.L. Schnell</b>	323	Effects of Oocyte Exposure to Local Anesthetics on in Vitro Fertilization and Embryo Development in the Mouse
<b>A.G. Sacco</b>		
<b>R.T. Savoy-Moore</b>		
<b>K.M. Ataya</b>		
<b>K.S. Moghissi</b>		
 <b>R. Vogel</b>	329	Genotoxic and Embryotoxic Effects of Gonadotropin-Hyperstimulated Ovulation of Murine Oocytes, Preimplantation Embryos, and Term Fetuses
<b>H. Spielmann</b>		
 <b>A. Halling</b>	335	Alterations in Hypothalamic and Pituitary Hormone Levels Induced by Neonatal Treatment of Female Mice with Diethylstilbestrol
 <b>Y. Wang</b>	347	Reproductive Toxicity of Theobromine and Cocoa Extract in Male Rats
<b>D.P. Waller</b>		
<b>A.P.S. Hikim</b>		
<b>L.D. Russell</b>		
 <b>K.D. Vachhrajani</b>	355	Testicular Toxicity of Methylmercury: Analysis of Cellular Distribution Pattern at Different Stages of the Seminiferous Epithelium
<b>A.R. Chowdhury</b>		
<b>K.K. Dutta</b>		
 <b>S. Avigdor</b>	363	Quinone Reductase Activity in the First Trimester Placenta: Effect of Cigarette Smoking and Polycyclic Aromatic Hydrocarbons
<b>D. Zakheim</b>		
<b>E.R. Barnea</b>		
 <b>M. Peterka</b>	367	Embryotoxicity of 25 Psychotropic Drugs: A Study Using CHEST
<b>R. Jelínek</b>		
<b>A. Pavlík</b>		
 <i>Book Reviews</i>		
 <b>A.R. Scialli</b>	375	The Amazing Mr. Lewis <i>Hazardous Chemicals Desk Reference</i> by R.J. Lewis, Sr. <i>Reproductively Active Chemicals</i> by R.J. Lewis, Sr.
 379	Announcements	

Volume 6, Number 5

September/October 1992

## CONTENTS

### *Editorial*

<b>A.R. Scialli</b>	383	Confidence and the Null Hypothesis
---------------------	-----	------------------------------------

*Original Contributions*

**J.S. Kesner** 385 Methods of Monitoring Menstrual Function in Field Studies: Efficacy of Methods  
**D.M. Wright**  
**S.M. Schrader**  
**N.W. Chin**  
**E.F. Krieg, Jr.**

**D.M. Wright** 401 Methods of Monitoring Menstrual Function in Field Studies: Attitudes of Working Women  
**J.S. Kesner**  
**S.M. Schrader**  
**N.W. Chin**  
**V.E. Wells**  
**E.F. Krieg, Jr.**

**D.R. Plowchalk** 411 Reproductive Toxicity of Cyclophosphamide in the C57BL/6N Mouse: 1. Effects on Ovarian Structure and Function  
**D.R. Mattison**

**D.R. Plowchalk** 423 Reproductive Toxicity of Cyclophosphamide in the C57BL/6N Mouse: 2. Effects on Uterine Structure and Function  
**M.J. Meadows**  
**D.R. Mattison**

**W.J. Swartz** 431 Effects of Methoxychlor Treatment of Pregnant Mice on Female Offspring of the Treated and Subsequent Pregnancies  
**M. Corkern**

**Y.-C. Chou** 439 Effects of Antiestrogens on Adult and Neonatal Mouse Reproductive Organs  
**T. Iguchi**  
**H.A. Bern**

**D.E. Seyler** 447 A 40-Week Male Fertility Study of the Anticancer Agent Sulofenur (LY186641) Administered Orally to Rats  
**R.L. Cochrane**  
**G.C. Todd**

**A. Romero** 453 Relationship Between Fetal Weight and Litter Size in Rats: Application to Reproductive Toxicology Studies  
**F. Villamayor**  
**M.T. Grau**  
**A. Sacristán**  
**J.A. Ortiz**

*Book Reviews*

**P.C. Sacks** 457 *Hormones and the Fetus, Volume 2* by J.R. Pasqualini, F.A. Kincl, and C. Sumida

**A.R. Scialli** 457 *Histological and Histopathological Evaluation of the Testis* by L.D. Russell, R.A. Ettlin, A.P. Sinha Hakim, and E.D. Clegg

461 Announcements

## CONTENTS

*Editorial*

**A.R. Scialli** 465 Inadequate Response from the FDA

**R.B. Melchert**  
**A.A. Welder** 467 The Combined Effects of Cocaine and Amphetamine on Primary Postnatal Rat Heart Cell Cultures

**P.R. McElhatton** 475 The Use of Phenothiazines During Pregnancy and Lactation

**R.E. Linder**  
**L.F. Strader**  
**V.L. Slott**  
**J.D. Suarez** 491 Endpoints of Spermatotoxicity in the Rat After Short Duration Exposures to Fourteen Reproductive Toxicants

**G.P. Toth**  
**S.-R. Wang**  
**H. McCarthy**  
**D.R. Tocco**  
**M.K. Smith** 507 Effects of Three Male Reproductive Toxicants on Rat Cauda Epididymal Sperm Motion

**I. Figà-Talamanca**  
**V. Dell'Orco**  
**A. Pupi**  
**F. Dondero**  
**L. Gandini**  
**A. Lenzi**  
**F. Lombardo**  
**P. Scavalli**  
**G. Mancini** 517 Fertility and Semen Quality of Workers Exposed to High Temperatures in the Ceramics Industry

**Q.-P. Lee**  
**M.R. Juchau** 525 Mechanisms of Glucagon-Induced Increases in Rates of Cytochrome P450-Dependent Pentoxyphenoxazone *O*-Depetylation in Cultured Rat Conceptuses

**N. Clague**  
**M. Sevcik**  
**G. Stuart**  
**M. Brännström**  
**P.O. Janson**  
**J.F. Jarrell** 533 The Effect of Estrous Cycle and Buthionine Sulfoximine on Glutathione Release from the In Vitro Perfused Rat Ovary

**I. Pollard**  
**R. Claassens** 541 Caffeine-Mediated Effects on Reproductive Health Over Two Generations in Rats

<b>K. Omoe</b>	547	Susceptibility to Teratogenicity of Hypervitaminosis-A in
<b>A. Endo</b>		X-Monosomy Mice
<i>Book Reviews</i>		
<b>A.R. Scialli</b>	551	<i>Developmental Toxicology. Risk Assessment and the Future</i> edited by R.D. Hood
<b>A.R. Scialli</b>	551	<i>Catalog of Teratogenic Agents, Seventh Edition</i> by T.H. Shepard
	553	Announcements
	556	Thanks to Our Reviewers
<b>I</b>		Volume 6 List of Contents/Author Index/Key Word Index

